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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,827	08/29/2000	Edward A. Schrock	303.527US2	8668

21186 7590 04/09/2002

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
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MINNEAPOLIS, MN 55402

EXAMINER
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GALLAGHER, JOHN J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 04/09/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-9

# Office Action Summary

Application No.

09/649827

Applicant(s)

Examiner

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on OK JANUARY 2002

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 34-63 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 34-63 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

☐ Copies of the certified copies of the priority documents have been received  
in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

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1. The disclosure is objected to because of the following informalities: Page 10 lines 10 and 11 - change "thermoset" to "thermosetting", consistent with the amendments made along this line in claims 39 and 44.

Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 34, 37-38 and 51-63 are rejected under 35 U.S.C. 102(e) and (b), respectively, as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either King or Bradley.

4. Claims 35-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tsukahara.

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5. Claim 39 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Baker et al. or Kotato et al.

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 40-50 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either Baker et al. or Kotato et al., each in view of the prior art admission.

8. Applicants' arguments filed 04 January 2002 have been fully considered but they are not deemed to be persuasive. The foregoing art rejections are adhered to essentially for the reasons of record (see paragraphs 5-7 and 10 of the last Office action), with the following being additionally advanced in response to applicant's contentions made in the amendment: Regarding the (a) first art rejection, the electrical and electronic (e.g. chip) components employed by the respective patentees (<sup>K</sup>~~Ching~~ and Bradley (and also Baker et al. - see § (c), below)) are held to encompass within their scope and definition

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semiconductor dice; further, the bonding processes of these two patentees are clearly indicated as being conducted at low (i.e. room and "cold", respectively) temperatures i.e. at LESS THAN 100°C; (b) the second art rejection, the teaching of this patentee (Tsukahara) is seen to be consistent and in agreement with page 14 line 15 thru page 15 line 4 of applicants' specification; and (c) the third and fourth art rejections, the processing and/or laminating conditions (viz. P, T (to include activation and bonding) and t) are held to be well within the purview of those of ordinary skill in this art to determine an effect to achieve the desired result (viz. satisfactory bonding), dependent upon the adhesive and substrate materials employed etc.; further (1) the adhesive of these patentees (Baker et al. and Kotato et al.) are held to exhibit both pressure sensitive (viz. tacky in A and B-stages) and thermosetting (viz. fully cured in C-stage) characteristics, in the same manner as apparently envisioned by applicants; and (2) N.B. column 8 lines 56-62 of Kotato et al. for the provision of an organic support base (i.e. substrate) to which their semiconductor element is bonded. Finally, it is noted that (1) the environment of all of the applied references is essentially the same as that of applicants (viz. electrical/electronic); and (2) none of the limitations has been disregarded.

9. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. J. Gallagher whose telephone number is (703) 308-1971. The examiner can normally be reached on M-F from approximately 8:30 A.M. to 5 P.M. The examiner can also be reached on alternate N/A.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball, can be

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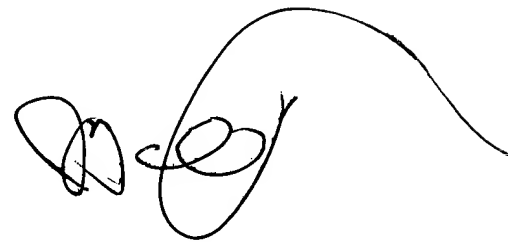
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reached on (703) 308-2058. The fax phone number for this Group  
is (703) ~~305-3599~~ <sup>872-9311</sup>

Any inquiry of a general nature or relating to the  
status of this application or proceeding should be directed to  
the Group receptionist whose telephone number is (703)  
308-0661/0662.

JJG  
JJGallagher:cdc

March 25, 2002



JOHN J. GALLAGHER  
PRIMARY EXAMINER  
ART UNIT 131 / 733